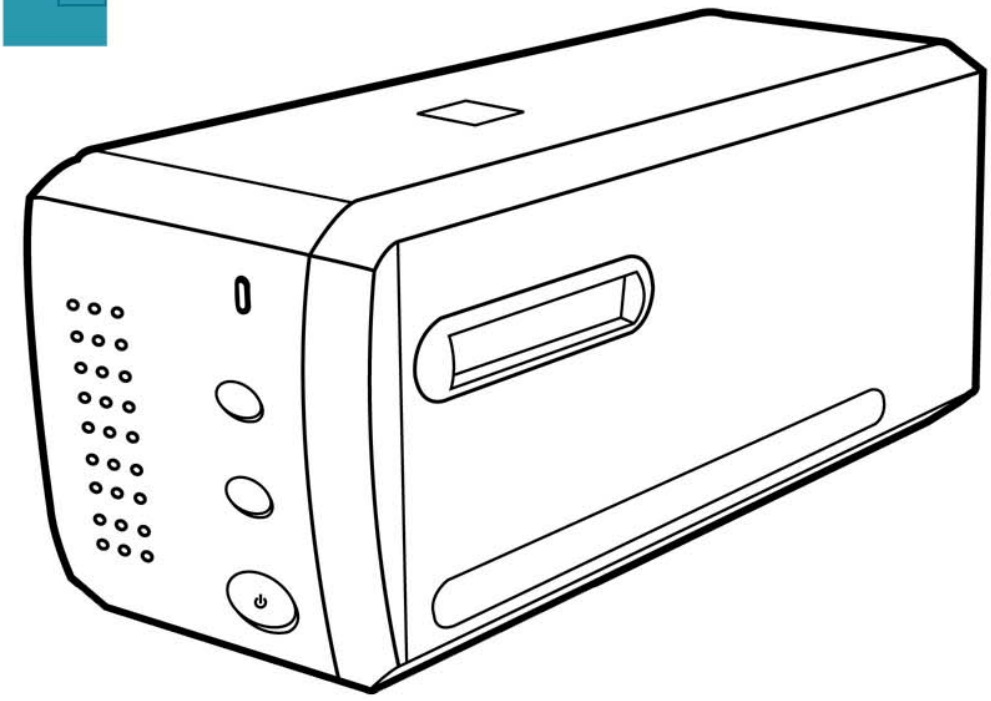
Scanner
User's Guide



- ✓ **Installation**
- ✓ **Usage & Maintenance**
- ✓ **Troubleshooting**

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The product packaging is recyclable.

Attention for recycling (For EU country only)
Protect your environment! This product should not be thrown into the household waste container. Please give it to the free collecting center in your community.

Screen Examples in This Manual

The screen shots in this guide were made with Windows XP. If you are using Windows 2000/ Vista/7, your screen will look somewhat different but functions the same.

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Introduction

Welcome to the world of Plustek scanners – the ultimate in computer imaging. Your new scanner will improve the professionalism of your day-to-day computing tasks by allowing you to input images into your computer system.

Like all of our products, your new scanner is thoroughly tested and backed by our reputation for unsurpassed dependability and customer satisfaction.

Please remember to register your scanner. Registration may be completed in one of three ways:

1) By registering online via Plustek's Web Site;
2) By printing out and faxing a completed registration card to Plustek's customer service center;
3) By printing out and mailing the registration card directly to the Plustek office nearest you.

See the last page of this user's guide for a complete list of Plustek offices worldwide.

As a registered customer, you will receive customer support, new product information and software upgrades.

Thank you for choosing us as your scanner supplier. We hope you will continue to turn to us for additional quality products as your computing needs and interests grow.

How to Use This Guide

This User's Guide provides instructions and illustrations on how to install and operate your scanner. This guide assumes the user is familiar with Microsoft Windows. If this is not the case, we suggest you learn more about Microsoft Windows by referring to your Microsoft Windows manual before using your scanner.

The Introduction section of this manual describes the box contents and minimum computer requirements to use this scanner. Before you start installing your scanner, check the box contents to make sure all parts are included. If any items are damaged or missing, please contact the vendor where you purchased your scanner or our customer service directly.

Chapter I describes how to install scanner's software and connect the scanner to your computer. **Note: The scanner connects to your computer through the Universal Serial Bus (USB). If your computer does not support USB technology, you will need to purchase a USB interface card to add USB capabilities to your computer, or buy and install USB connectors if your motherboard has USB capabilities. This guide assumes that your computer is USB-ready and has a free USB port.**

Chapter II describes how to test, maintain and clean your scanner. It also describes how to use the scanner utility program which helps you troubleshoot and fix connection problems which may have occurred during the scanner installation.

Appendix A contains technical support information that can help you solve simple problems. Before calling for help, please read through Appendix A: Troubleshooting.

Appendix B contains the Specifications of the scanner you purchased.

Appendix C contains our limited warranty agreement and FCC statement concerning the product.

Conventions of This Guide

Bold — Important note or first use of an important term in a chapter.

[XXX] — Represents commands or contents on your computer screen.

A Note about Icons

This guide uses the following icons to point out information that deserves special attention.

Danger

Danger: A procedure that must be followed carefully to prevent injury, or accidents.

Caution

Caution: Information that, if not followed, may result in data loss or damage to the product.

Attention

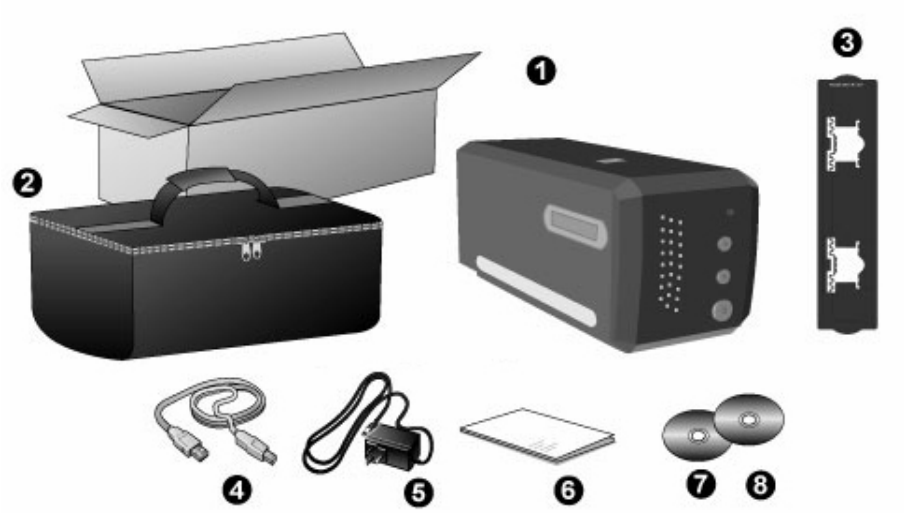
Pay Special Attention: Instructions that are important to remember and may prevent mistakes.

System Requirements[1]

- Windows/Intel Compatible Personal Computer
- Pentium Ⅲ CPU or above
- CD-ROM Drive
- 512 MB RAM
- Minimum 500 MB Free Hard Disk Space
- USB Port
- Microsoft Windows 2000 Professional/ XP/ Vista/ 7 compatible

  NOTE: Windows NT 4.0 does not support Universal Serial Bus (USB) connectivity.
- Video card that supports 16-bit color or greater

Box Contents[2]



1. Histology Slide Scanner
2. Padded carrying bag
3. Tissue Slide Holder
4. USB Cable
5. Power Adapter

[1] Higher requirements might be needed when you scan or edit a large quantity of image data. The system requirements here are only a guideline, as in general the better the computer (motherboard, processor, hard disk, RAM, video graphic card), the better the results.

[2] Save the box and packing materials in case you need to transport this scanner in the future.

6. Quick Guide
7. Setup / Application CD-ROM
8. LaserSoft SilverFast CD-ROM

Product Information

Please fill in the following information for your own records. You will need it when you contact your dealer or our service center in the future.

Serial Number: ❑❑❑❑❑❑❑❑❑❑❑❑

(Located at the rear of the scanner)

Date of Purchase: ❑❑ - ❑❑ - ❑❑❑❑

Chapter I. Installing the Scanner

Before installing your scanner, please verify that you have all of the proper components. A list of the package contents is provided in the *Box Contents* section of this guide.

Software Installation Requirements

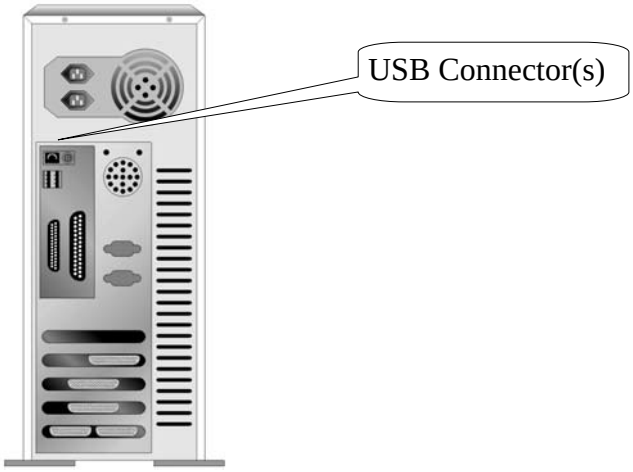
Your scanner comes with the image-editing software (Presto! ImageFolio), document management software (Presto! PageManager), the scanner's driver, QuickScan Setting and LaserSoft SilverFast software. All of these software applications use approximately 160 megabytes of hard disk space after they are installed into your computer. To ensure ample room for the installation, as well as for scanning and saving images, a minimum of 260 megabytes of hard disk space is recommended.

The USB scanner can only operate under the Microsoft Windows 2000 Professional, XP, Vista or 7 operating system.

Hardware Requirements

This scanner connects to your computer through the Universal Serial Bus (USB) which supports *hot Plug and Play*. To determine whether your computer is USB-capable, you must check the rear of your PC to locate a USB jack that looks the same as the one pictured below. Note that on some computers, the USB port at the rear of the computer may be occupied and additional ports may be found on the monitor or keyboard. If you are having trouble in locating the USB port on your computer, please refer to the hardware manual that came with your computer.

Upon examination, you should find one or two rectangular USB ports, which usually appear as shown below.

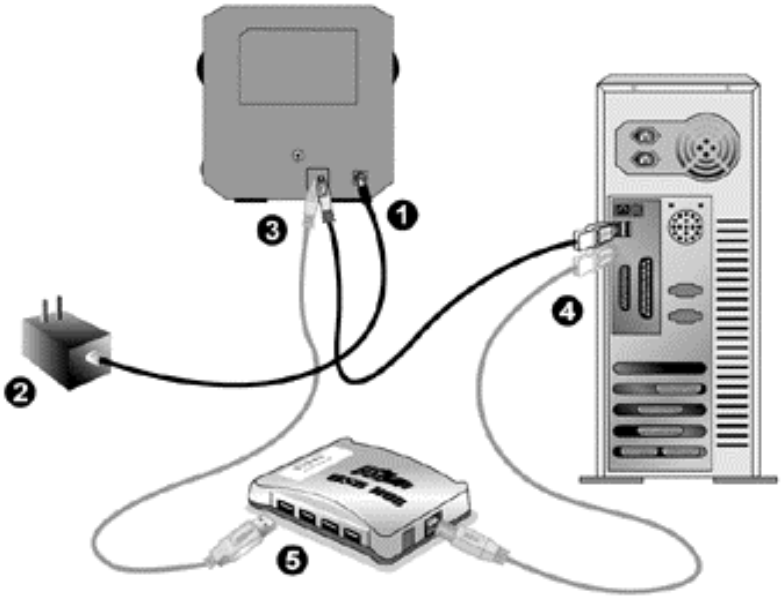


If you don't find such USB ports on your computer, then you need to purchase a certified USB interface card to add USB capabilities to your computer.

Installing and Setting up the Scanner

Please follow the step-by-step procedures described below to install the USB scanner.

Step 1. Connecting the Scanner to Your Computer



1. Plug the power adapter into the scanner's power receptor.
2. Plug the other end of the power adapter into a standard AC power outlet.
3. Plug the square end of the included USB cable to the USB port at the rear of the scanner.
4. Plug the rectangular end of the USB cable to the USB port on the back of your computer.

   Note: If there is another USB device connected to the computer; connect the scanner to an available USB port.

5. If you plan to connect your scanner to a USB hub[3], make sure that the hub is connected to the USB port in your computer. Next, connect the scanner to the USB hub.

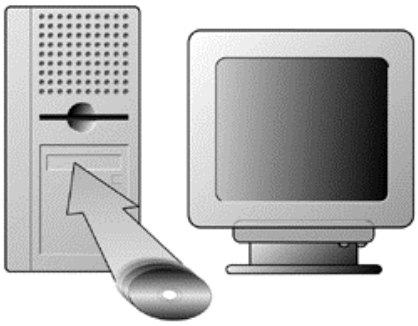
   Note: If you do not have a USB port available, you might need to buy a USB port.

[3] The USB hub is not included with the scanner.

Step 2. Installing the Software

1. If the USB components on your computer are functioning correctly, they will automatically detect the scanner causing the “Add New Hardware Wizard” or “Found New Hardware Wizard” to be launched. Note: If your computer was off when you connected the scanner, the “Add New Hardware Wizard” message will be displayed when you turn the computer on and when Windows starts.

2. **For Windows 2000**
   a. Click on the [Next] button when the “Add New Hardware Wizard” window is displayed.
   b. Select “SEARCH FOR THE BEST DRIVER FOR YOUR DEVICE [RECOMMENDED]” and click on the [Next] button.
   c. The next window will ask you where to search to find the drive. Select [CD-ROM drive], and deselect [Floppy disk drives] if it is checked.
   d. Insert the Setup/Application CD-ROM, included with your scanner, into your CD-ROM drive and then click on the [Next] button.



   e. Click on the [Next] button in the window that appears.
   f. During the process of the installation, a message “Digital Signature required” might be prompted. Please ignore it, and click on [Yes] to continue the installation without any misgiving at your scanner functioning. Afterwards, please skip to Step 6.

3. **For Windows XP**
   a. Insert the Setup/Application CD-ROM, included with your scanner, into your CD-ROM drive.
   b. Select “INSTALL THE SOFTWARE AUTOMATICALLY [RECOMMENDED]” and click on the [Next] button.
   c. Click on the [Next] button in the window that appears. Afterwards, please skip to Step 6.

4. **For Windows Vista**
   a. Select “Locate and install driver software (recommended)” when the “Found New Hardware” window is displayed.
   b. Click on the [Continue] button when the “User Account Control” dialog pops

up.

c. Insert the Setup/Application CD-ROM, included with your scanner, into your CD-ROM drive when the system prompts you “Insert the disc that came with your USB scanner”, and click on the [Next] button.

d. During the process of the installation, a message “Windows can’t verify the publisher of this driver software” might be prompted. Please ignore it, and click on [Install this driver software anyway] to continue the installation without any misgiving at your scanner functioning. Afterwards, please skip to Step 6.

5. **For Windows 7**
   a. Insert the Setup/Application CD-ROM, included with your scanner, into your CD-ROM drive. Close the **AutoPlay** window that appears.

   b. From the Windows **Start** menu, right click on the **Computer** and select **Properties** from the pop-up menu. Click **Device Manager** on the following screen.

   c. In the **Device Manager** window, right click on this scanner under **Other devices** item and select **Update Driver Software** from the pop-up menu. Click **Browse my computer for driver software** in the window that appears, and click the **Browse** button.

   d. In the **Browse For Folder** window, select the folder that contains this scanner driver and click the **OK** button to return to the previous screen. Click the **Next** button and click **Install this driver software anyway** in the **Windows Security** window.

6. When the system completes the installation, click on the [Finish] button.
7. Follow the on-screen instructions to install all software that your new USB scanner requires.
8. After the software is installed, close all open applications and click on the [Finish] button to restart your computer.

Attention

If the scanner installation is not started and displayed automatically on the screen, click [Start], select [Run] and type in [d:\install] (where d: is the drive letter assigned to the CD-ROM drive of your computer.)

Software Setup Troubleshooting

Carefully review the steps outlined in this guide and the Quick Installation Guide that accompanied your scanner.

If you are still having problems, please check that:

- You have 500MB of free space on your hard disk drive.
- The scanner is plugged in and has power.
- You are using the USB cable supplied with the scanner.
- The square end of the USB cable is plugged into the rear of the scanner.
- The rectangular end of the USB cable is plugged into the back of your computer.

If you deviated from the installation procedures defined in this manual, please unplug the USB cable from the scanner and reinstall the software from the CD-ROM. To reinstall your scanner's software, click [Start], [Run], then type [D:\Install] (where D represents the letter of your CD-ROM drive). Carefully follow all the installation instructions presented in the Setup Wizard. Reboot your computer when prompted, and plug the USB cable back into the scanner while your computer is still turned on.

Installing Additional Software

Your scanner is TWAIN compliant and functions with virtually all available TWAIN compatible software. If you purchase additional software to be used with your scanner, please make sure that it conforms to the TWAIN standard.

Chapter II. Usage and Maintenance

Operating the Scanner

Your scanner accepts to work with U.S. standard glass slides, 1.1mm thick 1 x 3 inches in length and No. 1 coverslips. However, some software programs have limitations as to the information they can handle. The capacity of the computer's memory and free space on your hard drive can also limit the physical size of the document that you scan.

There are three different ways to operate the scanner:

1. From within an image-editing program that can acquire images from the scanner.
2. Using QuickScan feature by pressing QuickScan button. The QuickScan Setting program is automatically installed as your scanner software.
3. Using SilverFast Launcher by pressing IntelliScan button. This stand-alone program allows you to perform advanced scanning features. For further information, please refer to SilverFast User's Manual.

An image-editing program has been bundled with your scanner on the included Setup/Application CD-ROM. It will allow you to alter and correct any scanned images by using a variety of filters, tools and effects.

QuickScan is a program that allows you to conveniently scan images without the need to work directly within any image-editing application (i.e. Presto! ImageFolio).

Please refer to the QuickScan Setting on-line Help (accessible by clicking on the QuickScan icon located near the clock icon on the Windows system tray, and choosing Help) for more information about these functions.

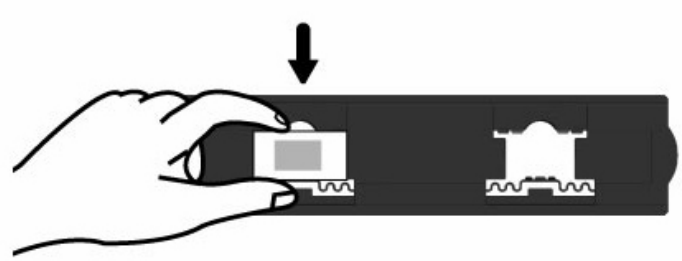
Tissue Slide Holder

Works with U.S. standard glass slides, 1.1 mm thick 1 x 3 inches in length and No. 1 coverslips

Using Tissue Slide Holder

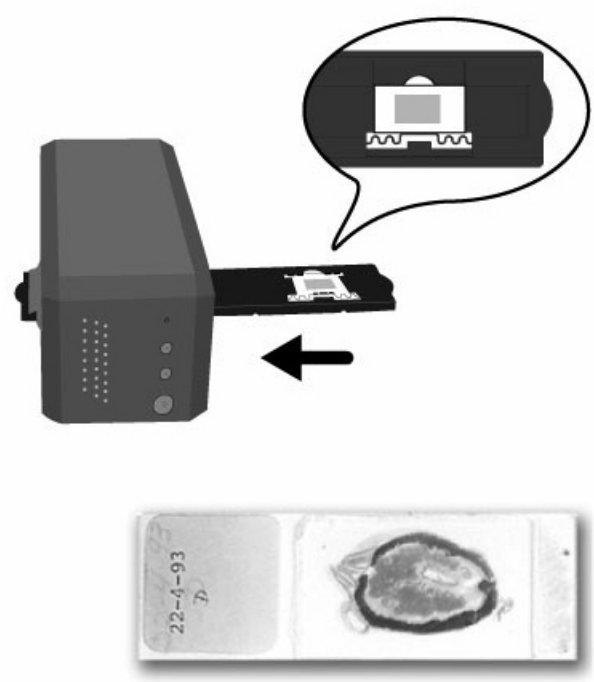
Insert the tissue slide glass into slots with emulsion (non-glossy) side down.

There are arrows and illustrations on the frame of each slot. Please follow illustrations to insert the tissue slide glass.



Attention

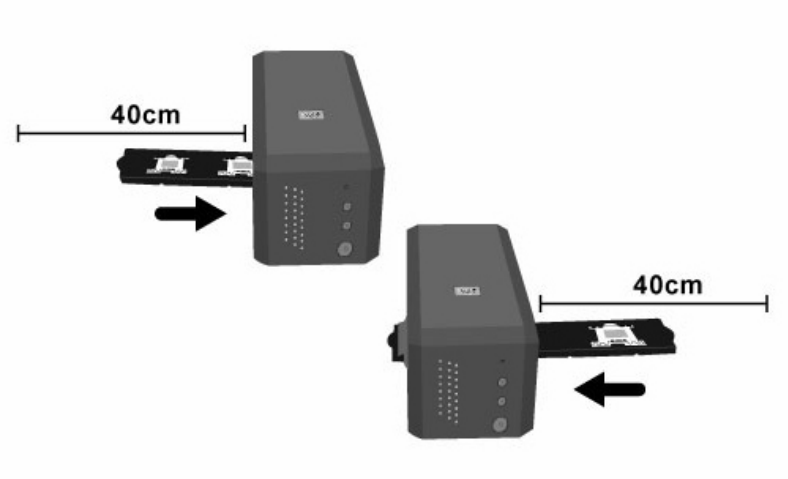
- For correct scan results, always turn the slide with the top of the image facing towards the back of the scanner (where power cord and USB cord located) and keep emulsion (non-glossy) side down.
- There is text to show the “top” and “bottom” of the Tissue Slide Holder. With the slide oriented correctly as described above, this text should be read clearly (i.e., not backwards or up-side-down the slide).



Insert the Tissue Slide Holder

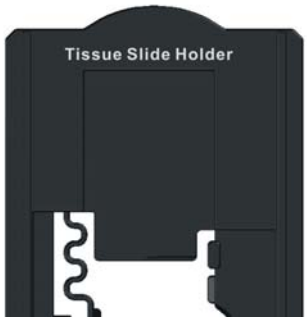
Insert the tissue slide holder into the scanner through dust cover. The tissue slide holder can be inserted from either side. The tissue slide holder will index at each frame using the notches on its side rails.

Please allow about 40 cm of space on both sides of the scanner to insert and remove the tissue slide holder.



Attention

- You can feel the tissue slide holder stop in its index position. However, before performing scan, please gently push and pull the tissue slide holder to make sure the tissue slide holder is in correct position.
- On up side of the tissue slide holder you can see 'Tissue Slide Holder'. Always keep this side up for correct scan results.



- The tissue slide holder should be able to be inserted in to the scanner smoothly. Do not push the tissue slide holder hard.

Using IntelliScan button

The IntelliScan button enables you to activate bundled SilverFast 6.5, which performs advanced scan features, such as Dust and Scratch Removal, Grain and Noise Elimination, Negative Optimization, etc.

Attention

For detailed settings and features about SilverFast 6.5, please refer to SilverFast 6.5 User's Manual.

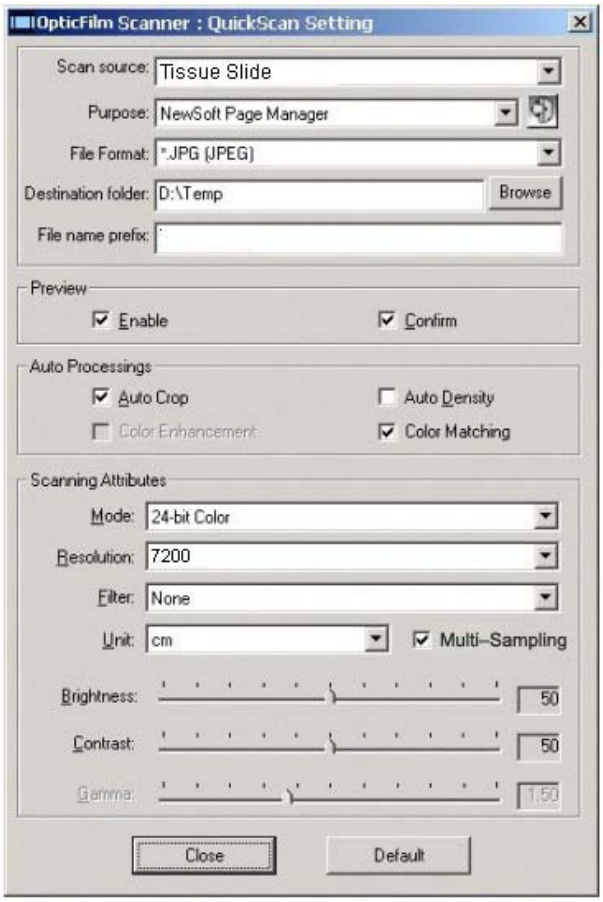
Using QuickScan button

The QuickScan button enables you to conveniently scan images and save them automatically to the album, and send them to the NewSoft Presto! PageManager program to perform other image editing tasks.

QuickScan setting

1. Double click on the QuickScan icon located on the Windows system tray, or right click on the QuickScan icon, and from the menu that pops up, point to [Properties].

2. Preference settings

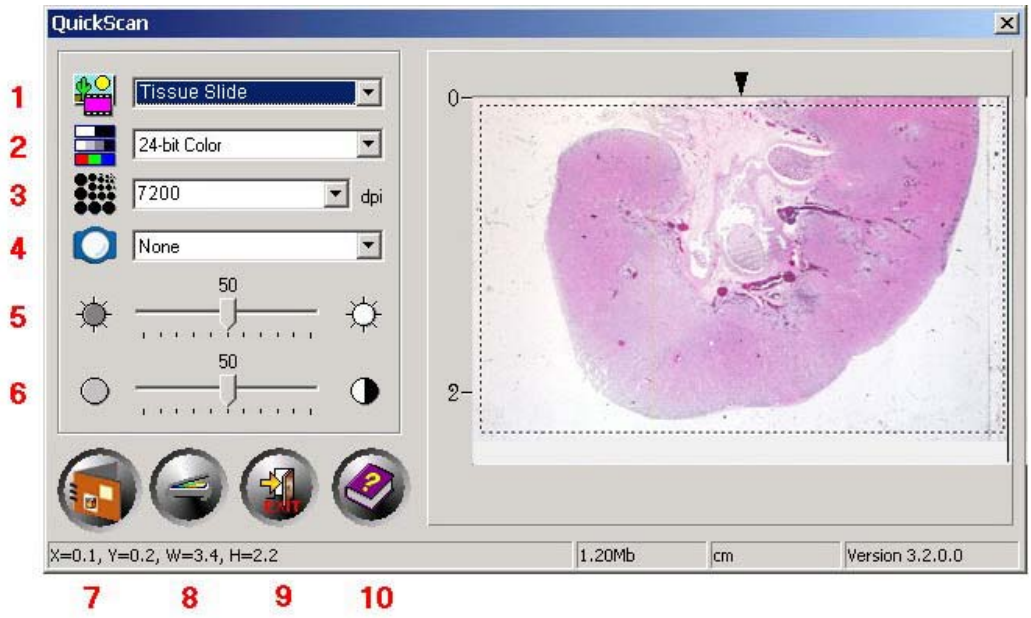


- Select ***Source*** (the material to be scanned), ***Purpose*** (the post-processing software to be saved or be processed), ***File Format*** (the format to be saved in), ***Destination Folder*** (the file saving path) and ***File name prefix*** (the film name, followed by 4-digits starting from 0000 for sequential scans).
- Check **Preview** window options to ***enable*** and/or ***confirm*** procedure.

- Select **Auto Processing** options.
  Please notice that ***Color Enhancemen***t feature is available in Negative mode only. ***Color Matching*** feature is available in Transparency mode only. ***Auto Density*** feature is available in both Transparency and Negative Film modes. However, due to different color processing method, ***Auto Density*** feature and ***Color Matching*** feature can not be applied simultaneously.
  Auto Crop feature will apply automatically if ***Auto Density*** feature is checked.
- Select **Scanning Attributes** options:
  You can alter scanning ***Mode, Resolution***, ***Filter***, ***Brightness***, ***Contrast*** and ***Gamma*** settings.
- Click the **Default** button if you desire to return to the default settings.
- Click the **Close** button to save the final settings and exit the QuickScan Setting window.

3. Preview window

This window is only operational if '***Enable***' and '***Confirm***' are both checked in **Preview** section.



1. Scanning source
2. Scanning mode
3. Resolution
4. Filter
5. Brightness
6. Contrast
7. Scan and save to album
8. Preview
9. Exit
10. On-line help

QuickScan Settings and Preview Window features

Source - Tells the scanner the method you will use to scan images.

- **Tissue Slide** - Use this mode for scanning the tissue slide glass.

Scan Mode - Tells the scanner the type of document you are scanning. There are three settings to choose from:

- **8-bit grayscale -** scans in 256 shades of gray, giving black and white images.
- **16-bit grayscale** – scans in more than 65,000 shades of gray, improving the realism of b/w images.
- **24-bit Color** - scans in millions of colors for slide realism. Choose this mode when scanning color slide. This is the best setting to select for scanning the tissue slide glass.
- **48-bit Color** – scans in billions of colors for professional imaging requiring precise uniformity of color.

Resolution - Resolution is measured in dots per inch (dpi). The higher the resolution, the more detailed the image, and the more memory and drive space the image will use.

Filter - Filters help you improve your scans by allowing you to sharpen images as well as remove excessive dots and distortion.

None

Average: Determines the medium depth of an image and averages adjacent pixels to make images appear softer.

Blur: Lets you dull the edges within an image, and decreases the contrast by making dark edges lighter and light edges darker.

Blur More: Adds additional blurring.

Sharpen: Allows you to sharpen the edges within an image by making the edges in an image more distinct. The Sharpen filter also increases contrast by making dark edges darker and surrounding light edges lighter.

Sharpen More: Adds additional sharpening.

Unsharpen: Sharpens the edges in an image to remove the blurriness. This is the best setting to select for scanning the tissue slide glass.

Brightness - This is the amount of light that is concentrated onto a document while it is being scanned.

Contrast - Contrast adjusts the tonal range of an image by lowering mid-tone values and increasing values for high and low tones.

Image Gamma is used to adjust the colors in the image that will be scanned into the computer. By adjusting the gamma, you can change the tonal range of the selected color channel. Gamma values are primarily a measure of the brightness of a color. The larger the gamma value, the brighter the color becomes. The best setting to select for scanning the tissue slide glass is an Image gamma of 1.35.

Note: By changing the gamma values you affect the image data, and influence how the image displays on your computer's monitor, and printer.

Purpose

This menu include File, Page Manager, Photoshop, Image Folio functions, which allows you to determine which software you would like to use for the post-processing of the scanned the tissue slide(s).

Auto Density

Checking this box automatically adjusts the Histogram to make the scanned image clearer. It does this by increasing the difference between color tones.

This feature is available in Tissue Slide mode.

Color Matching

This feature provides a particular color matching technique to maintain colors consistency between your output and the original image.

This feature is available in Tissue Slide mode only.

Attention

Due to different color processing method, Auto Density feature and Color Matching feature cannot be applied simultaneously. If Auto Density is checked, then Color Matching feature will be in gray-out status and unavailable. Likewise, if Color Matching is checked, then Auto Density feature will be in gray-out status and unavailable.

Color Enhancement

This feature is to compensate negative's underexposed Green and Blue channels.

If this feature is checked, pre-scan and scan time will noticeably increase.

Auto Crop

When this box is checked, the QuickScan program will identify the dimensions of the image you scanned and crop around the edges. The crop shape will be a square or rectangle and it will not trace the edges of oddly-shaped images.

Default

Clicking this button resets the values of all settings to their default values.

Status Indicator

The green LED indicator (above the SilverFast button) indicates the status of the scanner, as described below:

Light	Status
On	The scanner is connected with the computer, ready to scan images.
Off	The scanner is off, either because of disconnection with the computer, or because the computer has been turned off.

Scanner Connection

The first step to take when troubleshooting connection problems with your scanner is to check all physical connections. The QuickScan icon, located on the Windows system tray, indicates if the scanner software is properly launched and the scanner and computer are communicating with each other.

Appearance	Status
	The QuickScan program has been successfully launched and the scanner is connected with the computer, ready to scan mages.
	The scanner is not connected with the computer.
No Display	You have chosen to terminate the QuickScan program, no matter the scanner is connected or disconnected with the computer.

If the Windows system starts and detects the scanner unconnected, the following message will appear to remind you:

Scanner not available
Program was unable to find your scanner. Please check and ensure all cables are properly connected as described in the Quick Guide. You can see the following icon, indicating no cable connection, displayed in the system tray right beside the clock icon.
14:07
Do not show this message again.
OK

If you prefer not to see this reminder message again, you may:

- Check the box of [Do not show this message again] within this message window, and then click [OK] button.
- Click on the QuickScan icon located on the Windows system tray. Uncheck [Enable Warning] from the menu that pops up. Click the [No] button in the message box that appears.

Attention

If you would like to be prompted with this message again, you may click on the QuickScan icon and check [Enable Warning] from the menu that pops up. Click the [Yes] button in the message box that appears.

Maintenance

To keep your scanner working smoothly, take a moment to review the following maintenance tips.

Caution

- Avoid using the scanner in a dusty environment. When it is not in use, keep the scanner covered. Dust particles and other foreign objects may damage the unit.
- Do not attempt to disassemble the scanner. There is danger of an electrical shock and opening your scanner will void your warranty.
- Do not subject the scanner to excessive vibration. It may damage the internal components.
- Your scanner operates best in temperatures between 10° C to 40° C (50° F to 104° F).

Appendix A: Troubleshooting

Scanning Problems

Most problems are easily solved, and some of the most common questions and their recommended solutions are listed below.

Symptom: **After following the installation instructions, my computer cannot find the scanner.**

Cause 1: Some aspect of your computer system does not support USB.

Solution 1: Download and execute the file USBREADY.EXE at http://www.usb.org/home to determine the level of your computer's USB support.

Cause 2: USB is not enabled in your BIOS settings.

Solution 2: Enable the USB controller in your BIOS settings. This is typically done by pressing a key[4] (usually <del>, <F1> or <F10>) during startup. In the BIOS Settings screen that appears, find the option for USB and enable it. Exit and Save the changes you made. Your computer is rebooted automatically. Please consult your computer vendor before attempting to do this change.

Cause 3: The USB controller was improperly installed on your computer.

Solution 3: To reinstall the USB controller, click on the Start button, choose Settings and select Control Panel. In the window that opens, double-click on the Add New Hardware icon. Carefully follow the instructions that appear on your screen.

Symptom: **The scanned image looks grainy on the screen.**

Cause: Your video mode is not set to show more than 256 colors.

Solution: We recommend that you set your video mode to 16 bits per pixel (65536 colors) or higher. Please consult your video card, computer or Windows documentation to change the video mode.

Symptom: **The scanner scans very slowly.**

Cause 1: You are running other applications in the background.

Solution1: Close all the other applications that are running in the background.

Cause 2: You are scanning at a high resolution (DPI).

Solution 2: Reduce the resolution.

[4] Please consult your computer manual on how to modify your BIOS/CMOS settings.

Symptom: **The scanner is not in the list of supported scanners in other commercial software.**

Solution: Select TWAIN as the scanner.

Symptom: **Unable to scan from other software other than the one that came with the scanner.**

Solution: Enter the scanner Setup within the program, Select TWAIN and you will see your scanner listed.

Symptom: **Unable to save to a floppy diskette.**

Cause 1: The floppy disk might be write protected.

Solution 1: Move the write protection tab, located in the back of the diskette, to the closed position.

Cause 2: Your disk might not be formatted.

Solution 2: Format the diskette.

Cause 3: There is not enough space available in the disk to save the document.

Solution 3: Delete any files that you do not need from the floppy disk.

Cause 4: You might be scanning your document at a high resolution. Documents scanned using higher resolution modes will take a considerable amount of disk space.

Solution 4: Reduce the resolution.

Symptom: **The image looks good in the software that came with the scanner but it does not look good when I export the image to another program.**

Cause: Different imaging programs use different Monitor Gamma settings.

Solution: Change the Monitor Gamma settings in either of the programs so that they match. Please consult the help files for each program to find out how to adjust the Monitor Gamma.

Symptom: **The image looks good in the screen but is very dark when printed.**

Cause1: The Monitor Gamma Settings or the scanner brightness settings are not set properly.

Solution 1:
1) Change the Monitor Gamma to a value between 1.0 and 1.5. Please consult your help file for information on how to adjust the Monitor Gamma.
2) Adjust the brightness control in the TWAIN window before scanning.

Cause2: The printer brightness setting is not set properly.

Solution 2: Adjust the brightness in the printer. Some printers allow you to change the brightness settings. Please consult your printer documentation.

Symptom: The scanned image takes too long to be sent with an email message.

Cause1: The image was scanned at a high resolution or is physically large.

Solution1: Scan at a lower resolution (DPI)

Cause 2: The Internet might be congested.

Solution 2: Try sending the message at a later time.

Symptom: The image that I sent through email looks good in my computer but it looks dark in the recipient computer.

Solution: The Monitor gamma settings should be approximately the same in your and the recipient computer.

Symptom: There is a grinding or rattling noise at the beginning of each scan.

Cause: The scanner engages the gears and it initializes itself before scanning.

Solution: This noise is normal to the operation of the scanner.

Symptom: A. -Disk is full- error is displayed when I click on the scan button.

Cause: Your computer is running low in resources. Your computer hard disk drive does not have enough space to process the image. This may be because you are scanning at too high of a resolution.

Solution: Obtain a larger hard disk or rescan at a lower resolution.

Symptom: A -Disk I/O error- message is displayed.

Cause 1: This error is caused if the hard disk drive does not have enough space available to process the image.

Solution 1: Make some space available in the hard disk drive by deleting any programs or files that you do not need.

Cause 2: Your hard disk drive might be heavily fragmented or it might contain some bad sectors.

Solution 2: Run the Scan Disk utility that came with your Windows computer. Please consult your computer documentation or the Windows help files on how to run the Scan Disk Utility.

Symptom: The error "Scanner not Found" that is displayed.

Cause 1: The USB cables are not connected properly.

Solution 1: Make sure that the cables are connected tightly and to the proper port.

Cause 2: The USB cable might be too long.

Solution 2: Please use the USB cable that comes with your scanner.

Cause 3: The scanner's power cord is not connected properly.
Solution 3: Make sure that the AC adapter is connected to an outlet. If the scanner is connected to a Surge Protector, make sure that the Surge Protector is turned on.

Common -How-to- Questions

Symptom: How do I save the scanned image in JPG format?
Solution:
1) In the Image-editor, click on FILE
2) Click on SAVE AS.
3) Select the folder where you want to save your image.
4) Select JPEG or JPG under Save as type:
5) Type the name of the file name for your image.

Symptom: How do I cut an image and paste in another program?
Solution:
1) Select the area that you want to cut.
2) Click on EDIT.
3) Click on CUT.
4) Start the program and open the document where you want to paste your image.
5) Click on EDIT.
6) Click on PASTE.

Please consult your program documentation on how to Cut and Paste if you have any more questions.

Symptom: How do I send a scanned image using my email program?
Solution: Save your scanned image in a format that is supported by your email program (JPG, GIF or PNG are recommended). Once your picture is saved, consult the documentation of your email program on how to attach a file to a message.

Appendix B: Specifications[5]

OpticLab H850	
Physical dimensions	120 x 272 x 118.5 mm
Weight	1.6 kg (3.5 lbs)
Operating Temperature	10° C to 40° C (50° F to 104° F)
Max. Scan Area	24.3 x 35mm
Scan Method	Single-Pass
Scan Modes	Color: Input 48-it; Output 24/48-bit Grayscale: Input 16-bit; Output 8/16-bit
Light Source	RGB LED
Resolution	Optical Resolution: 7200 dpi Max. Hardware Resolution: 7200 dpi (main scan) x 7200 dpi (sub scan)
Scanning Materials	Works with U.S. standard glass slides, 1.1 mm thick, 1 x 3 inches in length and No. 1 coverslips.
Protocols	TWAIN Compliant
Connection	USB 2.0 High Speed
Power adapter	Power Output DC 15V, 1A
Power Consumption	Operation: 15 watts maximum Idle: 5 watts
EMI	FCC Class B

[5] Hardware specifications may change at any time without prior notice.

Appendix C: Customer Service and Warranty

If you encounter problems with your scanner, please review the installation instructions and troubleshooting suggestions contained in this guide.

For further assistance call our customer support phone number listed on the last page of this guide. One of our representatives will be happy to assist you from Monday through Friday in office working hours as shown below:

US Office Hours:	8:30 a.m. – 6:00 p.m.

To avoid delays, please have the following information available before calling:

- **Scanner name and model number**
- **Scanner serial number (located at rear of scanner near port connectors)**
- **A detailed description of the problem**
- **Your computer manufacturer and its model number**
- **The speed of your CPU (Pentium 133, etc.)**
- **Your current operating system and BIOS (optional)**
- **Name of software package(s), version or release number and manufacturer of the software**
- **Other USB devices installed**

Statement of Limited Warranty

This Statement of Limited Warranty applies only to the options you originally purchase for your use, and not for resale, from an authorized reseller.

The manufacturer warranty includes all parts and labor, and is not valid without the receipt of original purchase. To obtain warranty service, you may contact the authorized dealer or distributor, or visit our website to check out the available service information, or send a request via E-mail for further help.

If you transfer this product to another user, warranty service is available to that user for the remainder of the warranty period. You should give your proof of purchase and this statement to that user.

We warrant that this machine will be in good working order and will conform to its functional descriptions in the documentation provided. Upon provision of proof of purchase, replacement parts assume the remaining warranty of the parts they replace.

Before presenting this product for warranty service, you must remove all programs, data and removable storage media. Products returned without guides and software will be replaced without guides and software.

This Limited Warranty service does not provide for carry-in exchange when the problem results from accident, disaster, vandalism, misuse, abuse, unsuitable environment, programmed modification, another machine or non-vendor modification for this product.

If this product is an optional feature, this Limited Warranty applies only when the feature is used in a machine for which it was designed.

If you have any questions about your Limited Warranty, contact the approved retailer from whom you bought the product or the manufacturer.

THIS LIMITED WARRANTY REPLACES ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABLITY AND FITNESS FOR A PARTICULAR PURPOSE. HOWEVER, SOME LAWS DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES. IF THESE LAWS APPLY, THEN ALL EXPRESS AND IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE WARRANTY PERIOD. NO OTHER WARRANTIES APPLY AFTER THAT PERIOD.

Some jurisdictions do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply.

Under no circumstances are we liable for any of the following:

1. Third party claims against you for losses or damages.
2. Loss of, or damage to, your records or data; or
3. Economic consequential damages (including lost profits or savings) or incidental damages, even if we are informed of their possibility.

Some jurisdictions do not allow the exclusion or limitations of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This Limited Warranty gives you specific legal rights, and you may also have other rights that vary from jurisdiction to jurisdiction.

To obtain the warranty service, you may:

- Contact the authorized dealer or distributor.
- Visit our website to check out the up-to-date service.
- Send a request via E-mail for further help.

FCC Radio Frequency Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference

to radio communications. However, there is no guarantee that interference will not occur in a particular television reception (which can be determined by turning the equipment off and on), the user is encouraged to try to correct the interference by one or more of the following measures:

√ Reorient or relocate the receiving antenna.

√ Increase the separation between the equipment and receiver.

√ Connect the equipment to an outlet on a circuit different from that which the receiver is connected.

√ Shielded interconnect cables and shielded power cord which are supplied with this equipment must be employed with this equipment to ensure compliance with the pertinent RF emission limits governing this device.

√ Consult the dealer or an experienced radio/TV technician for help if the conditions persist.

√ Changes or modifications not expressly approved by the manufacturer or authorized service center could void the user’s authority to operate this equipment.

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